

MOLCHANOV, I.I.; TYZHNOV, A.V.

Early metamorphism of sedimentary rocks and its significance
for the prospecting combustible minerals. Razved. i okh. nedr
27 no.5:8-15 My '61. (MIRA 14:9)

1. Glavnaya geologicheskaya upravleniya RSFSR (for Molchanov).
2. Ministerstvo geologii i okhrany nadr SSSR (for Tyzhnov).
(Geology, Economic)

VOLKOVA, I. B.; NALIVKIN, D. V.; SLATVINSKAYA, Ye. A.; BOGOMAZOV, V. M.; GAVRILOVA, O. I.; GUREVICH, A. B.; MUDROV, A. M.; NIKOL'SKIY, V. M.; OSURKOVA, M. V.; PETRENKO, A. A.; POGREBITSKIY, Ye. O.; RITENBERG, M. I.; BOCHKOVSKIY, F. A.; KIM, N. G.; LUSHCHIKHIN, G. M.; LYUBER, A. A.; MAKEDONTSOV, A. V.; SENDERZON, E. M.; SINITSYN, V. M.; SHORIN, V. P.; BELYANKIN, L. F.; VAL'TS, I. E.; VLASOV, V. M.; ISHINA, T. A.; KONIVETS, V. I.; MARKOVICH, Ye. M.; MOKRINSKIY, V. V.; PROSVIRYAKOVA, Z. P.; RADCHENKO, O. A.; SEMERIKOV, A. A.; FADDEYEVA, Z. I.; BUTOVA, Ye. P.; VERBITSKAYA, Z. I.; DZENS-LITOVSAYA, O. A.; DURAR', G. P.; IVANOV, N. V.; KARPOV, N. F.; KOLESNIKOV, Ch. M.; NEFED'YEV, L. P.; POPOV, G. G.; SHTEMPEL', B. M.; KIRYUKOV, V. V.; LAVROV, V. V.; SAL'NIKOV, B. A.; MONAKHOVA, L. P. [deceased]; MURATOV, M. V.; GORSKIY, I. I., glav. red.; GUSEV, A. I., red.; MOLCHANOV, I. I., red.; TYZHNOV, A. V., red.; SHABAROV, N. V., red.; YAVORSKIY, V. I., red.; REYKHERT, L. A., red. izd-va; ZAMARAYEVA, R. A., tekhn. red.

[Atlas of maps of coal deposits of the U.S.S.R.]Atlas kart ugle-nakopleniya na territorii SSSR. Glav. red. I. I. Gorskiy. Zam. glav. red. V. V. Mokrinskii. Chleny red. kollegii: F. A. Bochkovskiy i dr. Moskva, Izd-vo Akad. nauk SSSR, 1962. 17 p.

(MIRA 16:3)

I. Akademiya nauk SSSR. Laboratoriya geologii ugleya. 2. Chlen-korrespondent Akademii nauk SSSR (for Muratov).

(Coal geology--Maps)

SKROBOV, S.A., glav. red.; TYZHNOV, A.V., zam. glav. red.; SHABAROV, N.V., zam. glav. red.; AMMOSOV, I.I., redaktor, red.; BURTSEV, D.N., red.; IVANOV, G.A., red.; KOROTKOV, G.V., red.; KOTLUKOV, V.A., red.; KUZNETSOV, I.A., red.; MIRONOV, K.V., redaktor; MOLCHANOV, I.I., redaktor; NEKIPEROV, V.Ye., red.; PONOMAREV, T.N., red.; POPOV, V.S., red.; PROKHOROV, S.P., red.; YAVORSKIY, V.I., red.; LAGUTINA, V.V., red. toma; LEVENSHTEYN, M.L., red. toma; SHIROKOV, A.Z., red. toma; IZRAILEVA, G.A., red. izd.-va; KROTOVA, I.Ye., red. izd.-va; IVANOVA, A.G., tekhn. red.

[Geology of coal and combustible shale in the U.S.S.R.] Geologija mestorozhdenii uglia i goriuchikh slantsev SSSR. Glav. red. I.I. Ammosov i dr. Moskva, Gosgeoltekhnizdat. Vol.1. [Coal basins and deposits in the south of the European part of the U.S.S.R.; Donets Basin, Dnieper Basin, Lvov-Volyn' Basin, deposits of the western provinces of Moldavia and the Ukraine, White Russia, Transcaucasia and the Northern Caucasus] Ugol'nye basseiny i mestorozhdeniya iuga Evropeiskoi chasti SSSR; Donetskii bassein, Dneprovskii bassein, Lvovsko-Volynskii bassein, mestorozhdeniya zapadnykh oblastei Ukrainskoy i Moldavii, Belorussii, Severnogo Kavkaza i Zakavkaz'ia. 1963. 1210 p. (MIRA 17:3)

1. Russia (1923- U.S.S.R.) Gosudarstvennyy geologicheskiy komitet.

KOSOV, B.M.; MOLCHANOV, I.I.

Evaluating the efficiency of geological prospecting. Razved. i
okh. nedr. 30 no.11:29-36 N '64. (MIRA 18:4)

1. Gosudarstvennyy geologicheskiy komitet RSFSR.

SVINARSKII, K.A. (Tashkent); MOLCHANOV, I.I. (Tashkent)

Press for making strap connections. Stroi. truboprov. 10
no. 11:26 N-65. (MIRA 18:12)

1. SU-4 tresta Soyuzprovodmekhanizatsiya.

MOLCHANOV, I. K.

Mashinisty-lunintsy motorvagonnoi tiagi. / Engineers, followers of Lunin movement
in motor traction/. Moskva, Gos. transp. zhel-dor. izd-vo, 1946. 68 p.
MH NNG

DLC: TF 85. M 62

SO: Soviet Transportation and Communications, A Bibliography, Library of Congress
Reference Department, Washington, 1952, Unclassified.

MOLCHANOV, I. K.

USSR/Electricity - Traction, Electric

Feb 52

"Utilization of the Heat of Starting Resistors,"
I. K. Molchanov

"Elektrichesstvo" No 2, p 84

Abstract of an article originally published in
"Informatsionnyye Materialy Energosbyta Mosenergo"
(Information Data of Administration of Electric
Power Sales, Mosenergo), May 1951. About 20,000
kw-hr of elec power are dissipated as heat in the

USSR/Electricity - Traction, Electric

(Contd)

Feb 52

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001135010009-1"

starting resistors on the electrified section of
the Moscow-Kazan railroad. Describes unit for
recovering this heat and using it to heat rail-
road cars. This unit was used successfully in
the winter of 1949-50.

208736

MOLCHANOV, I.K.; KALININ, V.K., redaktor; KANDYKIN, A.Ye., tekhnicheskiy
redaktor.

[Economizing on electric power in electric railroad traction; work practice on the suburban electrified section of the Moscow-Ryazan line] Ekonomiya elektricheskoi energii pri motorvagonnoi tiage. Opyt raboty na prigorodnom elektrifitsirovannom uchastke Moskovsko-riazanskoi dorogi. Moskva, Gos. transportnoe zhelez.-dor. izd-vo, 1954. 31 p. (MLRA 8:1)
(Electric railroads)

MOLCHANOV, I.N. [Molchanov, I.N.]

Method for solving Poisson's equation, which saves computer storage.
Dop. AN URSR no. 4:443-447 '62. (MERA 15:5)

I. Vychislitel'nyy tsentr AN USSR. Predstavлено akademikom
AN USSR V.M. Glushkovym [Glushkov, V.M.].
(Difference equations) (Electronic digital computers)

S/021/63/000/002/005/016
D405/D301

AUTHOR: Molchanov, I. M.

TITLE: On estimating the rate of convergence of an iterative method of solving an elliptical differential equation

PERIODICAL: Akademiya nauk UkrRSR. Dopovidi. no. 2, 1963, 165-168

TEXT: The rate of convergence of a one-row method is estimated which saves storage space of a computer. This method is used for solving Dirichlet's problem for an elliptical differential equation of the form

$$\frac{\partial}{\partial x} \left(p \frac{\partial u}{\partial x} \right) + \frac{\partial}{\partial y} \left(q \frac{\partial u}{\partial y} \right) - su = f, \\ p(x, y) > 0, \quad q(x, y) > 0, \quad s(x, y) \geq 0 \quad (1)$$

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S/021/63/000/002/005/016
D405/D301

On estimating the ...

in an arbitrary grid region D_h , utilizing a very simple 5-point difference scheme. In solving Eq. (1), the author takes as the first approximation the values of u_{ij}^0 at mesh points which lie in rows with even indices; the one-row iterational process of solution of Eq. (1) reduces to a solution by the relaxation method with the use of block iteration of difference equations. The latter are written in matrix form. The eigenvalues of the matrices are estimated. After calculations one obtains the following estimate:

$$\|v\| \leq |2p| \|u\|$$
$$\|u^{(k+1)} - u\| \leq \left(\frac{2 \min q}{2 \min p - 2 \min q + \max s - 2 \min p \cos \frac{\pi e}{n}} \right)^2 \|u^{(k)} - u\| \quad (10)$$

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On estimating the ...

S/021/63/000/002/005/016
D405/D301

ASSOCIATION: Instytut kibernetyky AN UkrSSR (Institute of Cybernetics
of the AS UkrRSR)

PRESENTED: by Academician V. M. Hlushkov of the AS UkrRSR

SUBMITTED: October 12, 1962

Card 3/3

S/021/63/000/002/006/016
D405/D301

AUTHOR: Molchanov, I. M.

TITLE: On methods of solving three-dimensional elliptical differential equations which save storage space of computers

PERIODICAL: Akademiya nauk UkrRSR. Dopovid. no. 2, 1963, 169-173

TEXT: The three-dimensional self-adjoint elliptical differential equation is replaced by a system of difference equations. Various iterational methods are proposed for solving this system. In the first approximation, the values of $u_{i,j,k}^{(0)}$ are assigned to the mesh points which lie in rows, designated as basic rows; the other rows are called intermediate rows. The iterational process involves solving two difference equations (for the basic and intermediate rows respectively). A one-row relaxation method is used for solving these two equations. The basic rows are constantly stored in the computer; at the same time all the intermediate rows of the second

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On methods of solving ...

S/021/63/000/002/006/016
D405/D301

square are also stored. In this variant of the method it is necessary to store the values of $u_{i,j,k}$ at $\frac{m_1 + 3}{2}$ rows of the mesh only.

This method can be extended to the case of two-row relaxation. The second method described involves the solution of vector equations by matrix relaxation. In this case the storage space consists of

$\frac{1 + 1}{2} m + m^2$ rows. Even more storage space can be saved by performing the matrix relaxation simultaneously with respect to rows which form a rectangular parallelepiped with a square or rectangular base belonging to the YOZ-plane. In this case the storage space consists of $\frac{1}{9}(5m_1 - 4m - 4l - 4) + 20$ rows. The iterative processes considered are convergent, since they belong to the methods of group relaxation.

ASSOCIATION: Instytut kibernetiki AN UkrSSR (Institute of Cybernetics of the AS UkrSSR)

PRESENTED: by Academician V. M. Hlushkov of the AS UkrSSR

SUBMITTED: October 12, 1962

Card 2/2

L 17843-63

EWT(d)/FCC(w)/EDS

AFFTC/TUP(C)

ACCESSION NR: AF3004959

S/0208/63/003/004/0720/0729 53

52

AUTHOR: Molchanov, I. N. (Kiev)TITLE: On methods of solving elliptic second-order equations economizing the
memory of computers

16

SOURCE: Zhurnal vychisl. matematiki i matematich. fiziki, v. 3, no. 4, 1963,
720-729TOPIC TAGS: elliptic second-order equation, difference-solution method, computer-
memory economization, block iterative method, single-row method, double-row methodABSTRACT: Difference methods are considered for solving the elliptic equation of
the form

$$\frac{\partial}{\partial x} \left(p \frac{\partial u}{\partial x} \right) + \frac{\partial}{\partial y} \left(q \frac{\partial u}{\partial y} \right) - su = f \quad (1)$$

in any domain of the computing net by utilizing the five-point difference scheme,
which can easily be realized on a computer. In the first place, the solution of
a first boundary value problem for equation (1) is studied. The difference equa-
tion corresponding to equation (1) is written which, in every horizontal row of

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ACCESSION NR: AF3004959

the interior of the net domain, is reduced to the form of an ordinary second-order difference equation. A modified elimination method [metod progonki] is presented which makes it possible to economize the memory of a computer. It is noted that this method gives substantial economy of the computer memory in the case of a single-block elimination. Computing schemes for two block iterative methods — single-row and double-row methods — are presented, and the question of economy of computer memory is analyzed. It is noted that the triple-row and k-triple-row methods can be developed in the same manner to ensure faster convergence of the computing process. Two graphs present the dependence of the number of arithmetic operations necessary to obtain the required accuracy of solutions on the number of lattice points of the computing net for single-row and double-row methods. The methods presented are shown to be of the group-relation type. They are applied to the solution of a third boundary value problem for equation (1). A table shows the number of iterations needed to obtain a solution with a given accuracy by the methods described above for certain mesh sizes of the net and for a certain number of lattice points. "In conclusion I consider it my pleasant duty to thank V. Ye. Shamanskiy for guiding the study." Orig. art. has: 10 formulas and 7 figures.

ASSOCIATION: none
SUBMITTED: 25 Jun 62
SUB CODE: MM
Card 2/2

DATE ACQ: 30 Aug 63
NO REF Sov: 005

ENCL: 60
OTHER: 000

ACCESSION NR: AT4019733

S/0000/63/000/000/0022/0035

AUTHOR: Molchanov, I. M. (Molchanov, I. N.)

TITLE: Methods for economizing the memory of computing machines while numerically solving elliptic differential equation

SOURCE: AN UkrRSR. Insty*tut kiberneticheskogo. Obchyslyuval'na matematika i tekhnika (Computer mathematics and engineering). Kiev, Vy*ed-vo AN UkrRSR, 1963, 22-35

TOPIC TAGS: computing machine, computing machine memory, second-order self-adjoint elliptic differential equation numerical solution

ABSTRACT: The author investigates numerical methods of solving boundary value problems for an elliptic, second-order, self-adjoint differential equation of the form:

$$\frac{\partial}{\partial x} \left(p \frac{\partial u}{\partial x} \right) + \frac{\partial}{\partial y} \left(q \frac{\partial u}{\partial y} \right) - su = f \quad (1)$$

($p(x, y) > 0$, $q(x, y) > 0$, $s(x, y) > 0$)

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ACCESSION NR: AT4019733

The proposed methods make it possible to economize the memory of an electronic computing machine, by permitting the machine to store values of the desired function not at all nodes, but only in a part of the nodes of the network domain, in which the solution of the differential equation is sought. These methods can actually be realized on electronic computing machines. Orig. art has 25 equations, 7 figures, 1 table.

ASSOCIATION: none

SUBMITTED: 19Sep63

DATE ACQ: 06Jan64

ENCL: 00

SUB CODE: MM

NO REF SOV: 038

OTHER: 000

Card 2/2

MOLCHANOV, I.N. (Kiev)

Methods of solution of second order elliptic equations requiring
little computer storage space. Zhur. vych. mat. i mat. fiz. 3
no. 4:720-729 Jl-Ag '63. (MIRA 16:7)

ACCESSION NR: AP4012348

S/0199/64/005/001/0109/0123

AUTHOR: Molchanov, I. N.

TITLE: Methods for economizing the memory in digital computers when solving systems of difference equations

SOURCE: Sibirskiy matematicheskiy zhurnal, v. 5, no. 1, 1964, 109-123

TOPIC TAGS: digital computer, digital computer memory, memory economy, difference equation, differential equation, elliptical differential equation, self-adjoint differential equation, boundary value problem, iteration, one-row method, two-row method

ABSTRACT: This paper considers various methods of solving boundary-value problems for two- and three-dimensional, self-adjoint, differential equations of the elliptical type in an arbitrary gridded region. The system of difference equations thus obtained is solved by a simple iteration method which calls for the storing of the values of the unknown functions at only a portion of the nodes. The paper also considers the convergence of the iteration process and gives a theoretical estimate for the speed of convergence for the so-called "one-row" method. Finally, the author discusses both the "one-row" and the "two-row" methods and compares the number of arithmetic operations as a function of the

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ACCESSION NR: AP4012348

number of nodes in both these methods for the problems mentioned above. All the results were obtained on a computer with a floating decimal point and a mantissa with 36 bits. "In conclusion, I would like to thank V. Ye. Shamanskiy for his guidance." Orig. art. has: 2 figures, 1 table and 30 equations.

ASSOCIATION: none

SUBMITTED: 27Sep62

DATE ACQ: 26Feb64

ENCL: 00

SUB CODE: CP, MM

NO REF Sov: 011

OTHER: 000

Card 2/2

MOLCHANOV, I.N.

Methods for saving memory space of digital computers in solving
systems of difference equations. Sib. mat. zhur. 5 no.1:109-123
Ja-F '64.
(MIRA 17:7)

ACCESSION NR: AT4002339

S/3036/63/000/000/0222/0229

AUTHOR: Khazanov, M. S. (Nikolayev); Molchanov, I. S. (Nikolayev)

TITLE: Investigation of thermal fatigue of heat resistant alloy gas turbine blades

SOURCE: Voprosy* vy*skotemperaturnoy prochnosti v mashinostroyenii. Vtoroye nauchno-tehnicheskoye soveshchaniye, 1962. Trudy*, Kiev, 1963, 222-229

TOPIC TAGS: gas turbine, gas turbine blade, turbine blade, thermal fatigue, ZhS6K alloy thermal fatigue, ZhS6 alloy thermal fatigue, ANV300 alloy thermal fatigue, EI417 steel thermal fatigue, EI602 alloy thermal fatigue, nickel base alloy, cast nickel base alloy, heat resistant alloy, heat resistant nickel alloy, ZhS6 alloy, ANV300 alloy, EI812 alloy, EI417 steel, EI602 alloy, ZhS6K alloy

ABSTRACT: Gas turbine blades, particularly in commercial service, are subjected to rapid temperature changes during frequent starts, stops, or rapid load changes. Also, the starting temperature of turbines with multi-stage rotors considerably exceeds the temperature at rated operation conditions. These changes in thermal conditions cause cyclically repeated thermal stresses in the blades, eventually leading to thermal fatigue. Great attention has recently been paid to investiga-

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ACCESSION NR: AT4002339

tions of thermal fatigue; however, in the majority of cases the tests have been carried out under conditions different from those in actual operation. The authors therefore summarize and evaluate the results obtained in tests of gas turbine blades subjected to thermal fatigue under conditions similar to those encountered in actual operation. Blades of the heat-resistant cast alloys ZhS6K, ZhS6, ANV 300, EI 812, EI 417, and heat-resistant sheet metal EI 602 were tested in the apparatus shown in Fig. 1 of the Enclosure. During the first cycle, the blade temperature increased from 20 to 1000°C in 60 seconds and decreased to 400°C in the next 60 seconds, which was the starting point for the next cycle. Fissures due to thermal fatigue appeared more often at the leading edge than at the trailing edge. During the tests, the leading and trailing edges were inspected under a 16-power microscope after every 25 cycles, continuing until fissures were detected. The following parameters were considered by the authors: blade form, mechanical and thermo-physical properties of the materials, heating and cooling rates, and the maximum cycle temperature. Fig. 2 of the Enclosure shows the various configurations of the tested blades. On the basis of the test results, the authors conclude that: (1) the formation of fissures is related to frequent starting and stopping; (2) the form of the blade has a decisive effect on thermal fatigue resistance; e.g., hollow blades have a higher resistance than solid blades; (3) the introduction of cobalt into alloys of the type ZhS6 does not increase their thermal resistance; (4) the mechanical and thermo-physical

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ACCESSION NR: AT4002339

properties of materials significantly affect their thermal resistance; plasticity, however, is not essential for high thermal resistance; (5) the parameters of the temperature cycle significantly affect the thermal resistance; thus, an increase in the maximum temperature sharply reduces the thermal resistance, and an increase in the cooling or heating rate, especially the former, decreases the thermal resistance; (6) the thermal resistance of a detail depends on the type of manufacture, so that blades made of EI 602 sheet have greater thermal resistance than those cast of ZhS6K alloy; (7) protective coatings do not affect the thermal resistance of blades made of ZhS6K alloy. Orig. art. has: 2 illustrations and 4 graphs.

ASSOCIATION: none

SUBMITTED: 00

SUB CODE: AP, MA

DATE ASQ: 03Dec63

NR REF Sov: 003

ENCL: 02

OTHER: 000

Card 3/5

MISHCHENKO, N.M., inzh.; BERDICHEVSKIY, Ye.Ye., inzh.; TERMINOSYAN, N.S.,
inzh.; KURILOV, A.I., inzh.; POLYAKOV, M.M., inzh.; DEMIDOVICH,
Ye.A., inzh.; PINDYURIN, N.I., inzh.; Prinimalni uchastiye:
MALINOVSKIY, V.G.; MOLCHANOV, I.V.; MASHISHINA, M.P.; YEMCHENKO,
Ye.K.; CHEREDNICHENKO, A.A.; STEPANOV, V.A.; SKACHKOV, L.N.
(deceased); KOSHMAN, A.I.; SHCHEKLIN, V.V.; CHUBATYUK, Ye.G.;
KHITOVA, Ye.Ye.; KOROBOVA, G.Z.; ROTMISTROVSKIY, B.M.; VEYSBEYN, A.D.

Increasing the efficiency of section tandem mills by the use of
repeaters. Stal' 23 no.3:236-241 Mr '63. (MIRA 16:5)

1. Yenakiyevskiy metallurgicheskiy zavod.
(Rolling mills--Equipment and supplies)

L 24462-66 ENT(m)/EWP(w)/EWA(d)/EWP(v)/T/EWP(t)/EWP(k)/ETC(m)-6 IJP(c) JN/JG/
ACC NRI AT6008665 (N) SOURCE CODE: UR/0000/65/000/000/0221/0227
WB/EM/GS

AUTHORS: Khazanov, M. S. (Kiev); Yefimov, A. I. (Kiev); Molchanov, I. S. (Kiev)

ORG: none

TITLE: Several methods of improving the performance of nozzle blades

SOURCE: Vsesoyuznoye soveshchaniye po voprosam staticheskoy i dinamicheskoy prochnosti materialov i konstruktsionnykh elementov privyssokikh i nizkikh temperaturakh, 3d. Termoprochnost' materialov i konstruktsionnykh elementov (Thermal strength of materials and construction elements); materialy soveshchaniya. Kiev, Naukova dumka, 1965, 221-227

TOPIC TAGS: thermal stress, thermal fatigue, turbine blade, metal fatigue, nickel base alloy, chromium base alloy, metal surface, annealing, corrosion resistance, heat resistance

ABSTRACT: The effects of smelting method (in vacuum and air), heat resistant alloying (with chromium), annealing (in argon), and protective coatings (thermal diffusion calorizing) on the thermal and corrosion resistant properties of a nickel-chromium based alloy were studied. The structure of the surface layers was also investigated by subjecting nozzle blades made of this alloy to thermal cycling (30 seconds to reach 1475K gas temperature, 30 seconds at 1475K, cooling in 325K air for one minute). Smelting was performed in an air induction furnace (LGPZ-60) and in a vacuum furnace.

(VIAM-165, $6 \cdot 10^{-3}$ mm Hg) and was followed by standard heat treatment. Annealing in

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ACC NR: AT6008665

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argon was performed at 1275 and 1375K and calorizing in a mixture of aluminum compounds at 1225K. The previously described method of M. S. Kazanov and I. S. Molchanov (sb. Voprosy vysokotemperaturnoy prochnosti v mashinostroyenii, Izd-vo AN UkrSSR, 1963) was used to evaluate the thermal resistance of the blades. The effect of the above factors on thermal fatigue, thermal resistance, and corrosion resistance of the blades is described quantitatively and is discussed qualitatively. Orig. art. has 7 figures.

SUB CODE: 13,20 / SUBM DATE: 19Aug65 / ORIG REF: 005

Card 2/2dok

MOLCHANOV, I. V., Eng.

Hydrolysis

One system for the hydrolysis of fats. Masl.-shir. prom. 18, No. 3, 1953.

Monthly List of Russian Accessions, Library of Congress, June 1953. Uncl.

MOLCHANOV, I. V.

"Investigation in the High-Temperature Hydrolysis of Fats."
Cand Tech Sci, Krasnodar Inst of Food Industry, Min Higher Education USSR, Moscow-Krasnodar, 1954. (KL, No 7, Feb 55)

SO: Sum. No. 631, 26 Aug 55-Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (14)

MOLCHANOV, I.V., inzhener.

Venting steam from autoclaves during high-temperature fat hydrolysis. MasL.-zhir.prom. 19 no.6:21-22 '54. (MLRA 7:10)

1. KIPP.

(Oils and fats) (Hydrolysis)

MOLCHANOV, I.V.

Work created the man. Nauka i zhizn' 22 no.8:35-39 Ag'55.
(MIRA 8:10)

1. Aspirant Moskovskogo Gosudarstvennogo universiteta imeni
Lomonosova
(Man--Origin)

MOLCHANOV, I.V.

Coefficient of incompleteness and its application to studies on
the hydrolysis of fats. Trudy KIPP no.16:141-145 '57.
(MIRA 12:7)

I. Krasnodarskiy institut pishchevoy promyshlennosti, Mekhaniko-
cheskiy fakul'tet, kafedra spetsial'nogo oborudovaniya.

(Oils and fats) (Hydrolysis)

MOLCHANOV, I.V.

Heat capacity of hydrogenated fats at high temperatures. Trudy
KIPP no.16:147-152 '57. (MIRA 12:7)

I. Krasnodarskiy institut pishchevoy promyshlennosti, Mekhaniko-
cheskiy fakul'tet, kafedra spetsial'nogo oborudovaniya.
(Heat capacity) (Oils and fats)

MOLCHANOV, I.V.

Analysis of the performance of reaction vessels for high-tem-
perature hydrolysis of fats. Izv.vys.uchab.zav.; pishch.tekh.
no.6:102-108 '58. (MIRA 12:5)

1. Krasnodarskiy institut pishchevoy promyshlennosti, Kafedra
spetsoborudovaniya.
(Oils and fats) (Hydrolysis)

MOLCHANOV, I.V.

Some problems in the typology and classification of ice cover
on lakes and reservoirs. Trudy GGI no.113:180-198 '64.

(MIRA 17:11)

MOLCHANOV, I.V.

Degree of hydrolysis of fats. Izv.vys.ucheb.zav.; pishch.tekh.
no.1:100-103 '59. (kHa 12:6)

I. Krasnodarskiy institut pishchevoy promyshlennosti, kafedra
spetsoborudovaniya.
(Oils and fats) (Hydrolysis) (Glycerol)

MOLCHANOV, I.V.

Calculation of automatic soap cutting machines. Izv.vys.ucheb.zav.;
pishch. tekhn. no.6;106-III '61. (MIRA 15:2)

I. Krasnodarskiy institut pishchevoy promyshlennosti, kafedra
spetsoborudovaniya.
(Soap industry—Equipment and supplies)

MOLCHANOV, I.V.

The Heintz sterilizer (British patent No.713031). Kons.i ov.
prom. 17 no.6:42-44 Je '62. (MIRA 15:5)
(Canning and preserving--Sterilization)

MOLCHANOV, I. V.

OSU-A 356

O Materialakh Po Limnos"yemke Yakutii i Altaya: On
Materials for Lake Survey of Yakutiya and Altay.

Issledovaniya Ozer SSSR: Gosudarstvennyy
Gidrologicheskiy Institut, No. 8, 1934, pp. 3-50.

Library of Congress, GBI707-All4

Abstract in German. Description of nine small (5-10
km. diameter) lakes between the river Lena and Aldan,
in the region $61^{\circ}55' - 62^{\circ}35'$ N, $130^{\circ}30' - 131^{\circ}40'$ E.
Sketch maps of these lakes, variable scale 1:10,000
to 1:100,000.

(76)

KOLCHANOV, I. V.

KOLCHANOV, I. V. Onezhskoe ozero; pod red. S.L. Rudenko. Leningrad, Gidrometeorologicheskoe izd-vo 1946. 207 p.

SLC: Unclass.

So: LC, Soviet Geography, Part II, 1951/Unclassified

MOLCHANOV, I. V.

21511 MOLCHANOV, I. V.

Pyatidesyatiletiiye ozerovedeniya.

Tezisy Doklada/.

Trudy Vtorogo Vsesoyuz. geogr. s"yezda, T. P.M., 1948, s. 251 - 52

SO: Letopis' Zhurnal'nykh Statey, No. 29, Moskva, 1949

~~MOLCHANOV, I.V., stvetsvennyy redaktor; SHATILINA, M.K., redaktor;~~
~~VLADIMIROV, O.G., tekhnicheskii redaktor~~

[Instructions for hydrometeorological stations and posts.
Nastavlenie gidrometeorologicheskim stantsiyam i postam] Leningrad,
Gidrometeor. izd-vo. No.7, pt.1. [Hydrological observations of lakes
and reservoirs] Gidrologicheskie nablyudenia na ozerakh i
vodokhranilishchakh. 1957. 239 p. (MIRA 10:5)

1. Russia (1923- U.S.S.R.) Glavnoye upravleniye gidrometeoro-
logicheskoy sluzhby.
(Hydrology)

MAZURENKO, Galina Viktorovna; MOLCHANOV, I.V., otr.red.; PROTOPOPOV,
V.S., red.; VLADIMIROV, O.G., tekhn.red.; BRAYNINA, M.I.,
tekhn.red.

[The Angara and the Lena in the Baikal region] Angara i Lena
v Pribaikal'e. Leningrad, Gidrometeoizd-vo, 1959. 92 p.
(MIRA 13:4)

(Angara River) (Lena River)

MOLCHANOV, I.V.

Relation of the dates of ice phases on certain lakes and rivers of the
western part of the U.S.S.R. Trudy GGI no.85:52-68 '62. (MIRA 15:6)
(Ice on rivers, lakes, etc.)

MOLCHANOV, I.V., inzh. (Zaporozh'ye); GRABKO, A.G., inzh. (Zaporozh'ye)

Waste water from the production of organosilicon compounds.
Vod. i san. tekhn. no.8:24-26 Ag '65.

(MIRA 18:12)

MOLCHANOV, K.K., kandidat tekhnicheskikh nauk.

Raising fuel economy in the D-54 engine. Avt. i trakt. prom.
no. 10:24-29 0 '56. (MIRA 10:1)

I. Nauchno-issledovatel'skiy avtomotornyy institut.
(Tractors--Engines)

MOLCHANOV, V.K., kand.tekhn.nauk

New carburation method for diesel engines. Trakt. i sel'khozmash.
no. 12:40-41 D '58. (MIRA II:12)
(Diesel engines--Carburetors)

MOLCHANOV, K.K., kand. tekhn. nauk"

Investigating the possibility of increasing the efficiency of the
D-54 tractor diesel in regard to fuel consumption. [Trudy] NATE no.19:
3-31 '59. (MIRA 12:9)

(Tractors--Engines)

MOLCHANOV, K.K., kand.tekhn.nauk

Selecting basic dimensions for turbulence combustion chambers.
Trakt. i sel'khozmach. 31 no. 3:14-17 Kr '61. (MIRA 14:3)

1. Nauchno-issledovatel'skiy avtoatraktornyj institut.
(diesel engines)

L 23318-66 EWP(f)/ETC(m)-6 WW

ACC NR: AP6009916 (N, A) SOURCE CODE: UR/0413/66/000/004/0114/0114

AUTHOR: Molchanov, K. K.

ORG: none

TITLE: Toroidal combustion chamber for a high-speed diesel engine. Class 46, No. 179117 [announced by State All-Union Scientific Research Tractor Institute (Gosudarstvennyy soyuznyy nauchno-issledovatel'skiy traktornyy institut)]

56

5

SOURCE: Izobreteniya, promyslennyye obraztsy, tovarnyye znaki, no. 4, 1966, 114

TOPIC TAGS: combustion chamber, diesel engine, fuel combustion, carburetion

ABSTRACT: An Author Certificate has been issued for a toroidal combustion chamber for a high-speed diesel engine with compound carburetion, designed with a cone-shaped throat and a central fuel cleaver both located in the piston head. To provide two-stage carburetion for more flexible performance and complete fuel combustion, there is a guiding projection located between the conic surface of the throat and the base of the cleaver, forming a circular channel with the conic surface and forming a toroidal chamber with the cleaver surface for vertical moving of the unevaporated portion of the fuel to the upper conic section of the throat (see Fig. 1). Orig. art. has: 1 figure. [LD]

Card 1/2

UDC: 621.43.056

L 23318-66

ACC NR: AF6009916

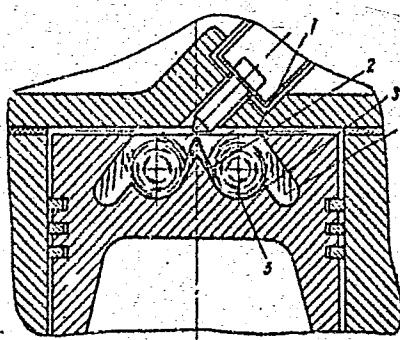


Fig. 1. Toroidal combustion chamber

1 - cone-shaped throat; 2 - central cleaver; 3 - guiding projection; 4 - annular duct; 5 - toroidal chamber

SUB CODE: 21,13/

SUBM DATE: 05Nov63/

ORIG REF: none/

OTH REF: none/

Card 2/2 ✓

MOLCHANOV, L.A.

MOLCHANOV, L.A....Ozera Srednei Azii (IU. Kazakstan, Kirgizstan, Uzbekistan, Turkmenistan, Tadzhikistan, Kara-Kalpakskaia Avtonomnaia Oblast'). Tashkent, Izd. Sredne-Aziatskogo Gosudarstvennogo universiteta, 1929. 82 p. (ITS Trudy. Seriia XII-a. Geografiia. Vyp. 3).

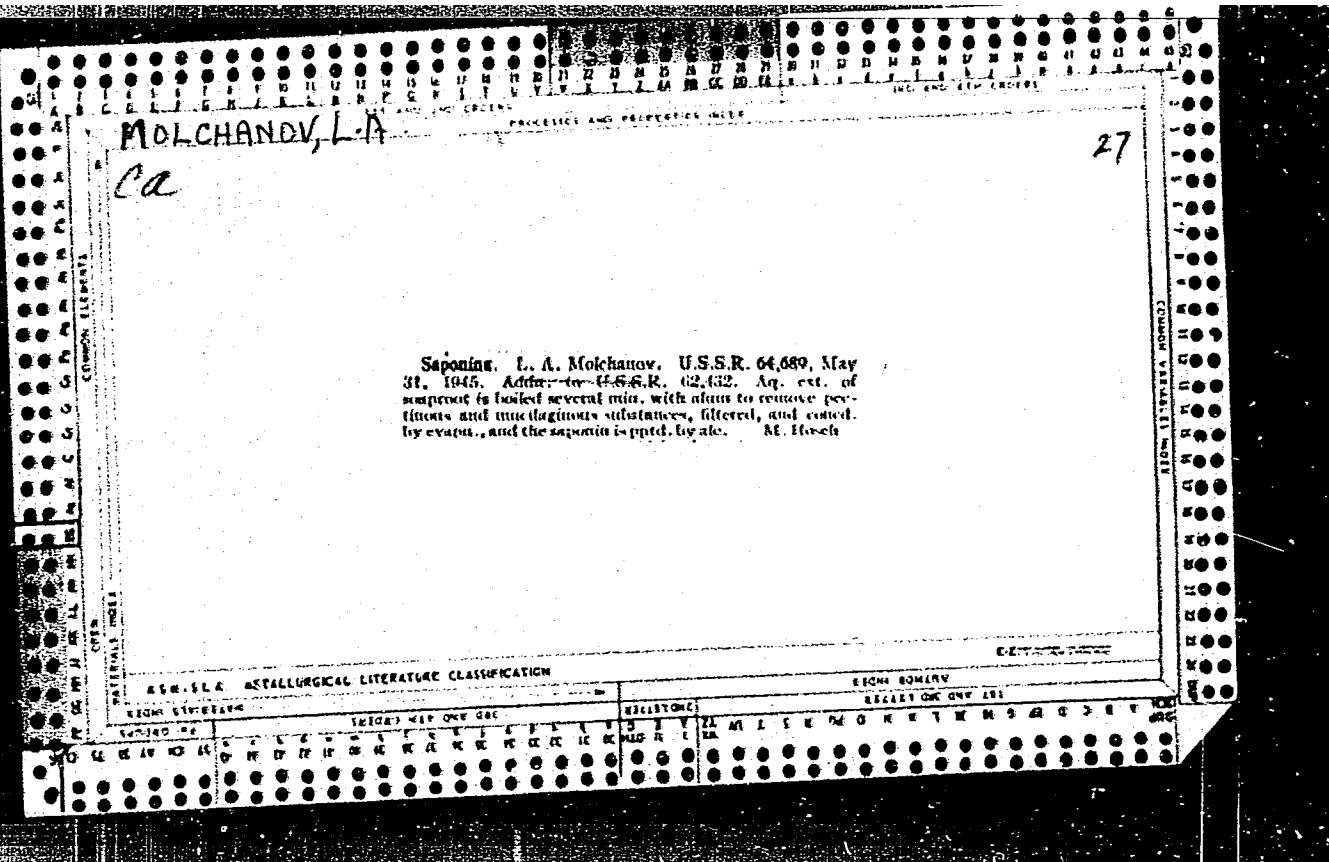
"Spisok glavn. lit-ry po ozeram Sr. Azii": p. 62-72. DLC: G23.V6

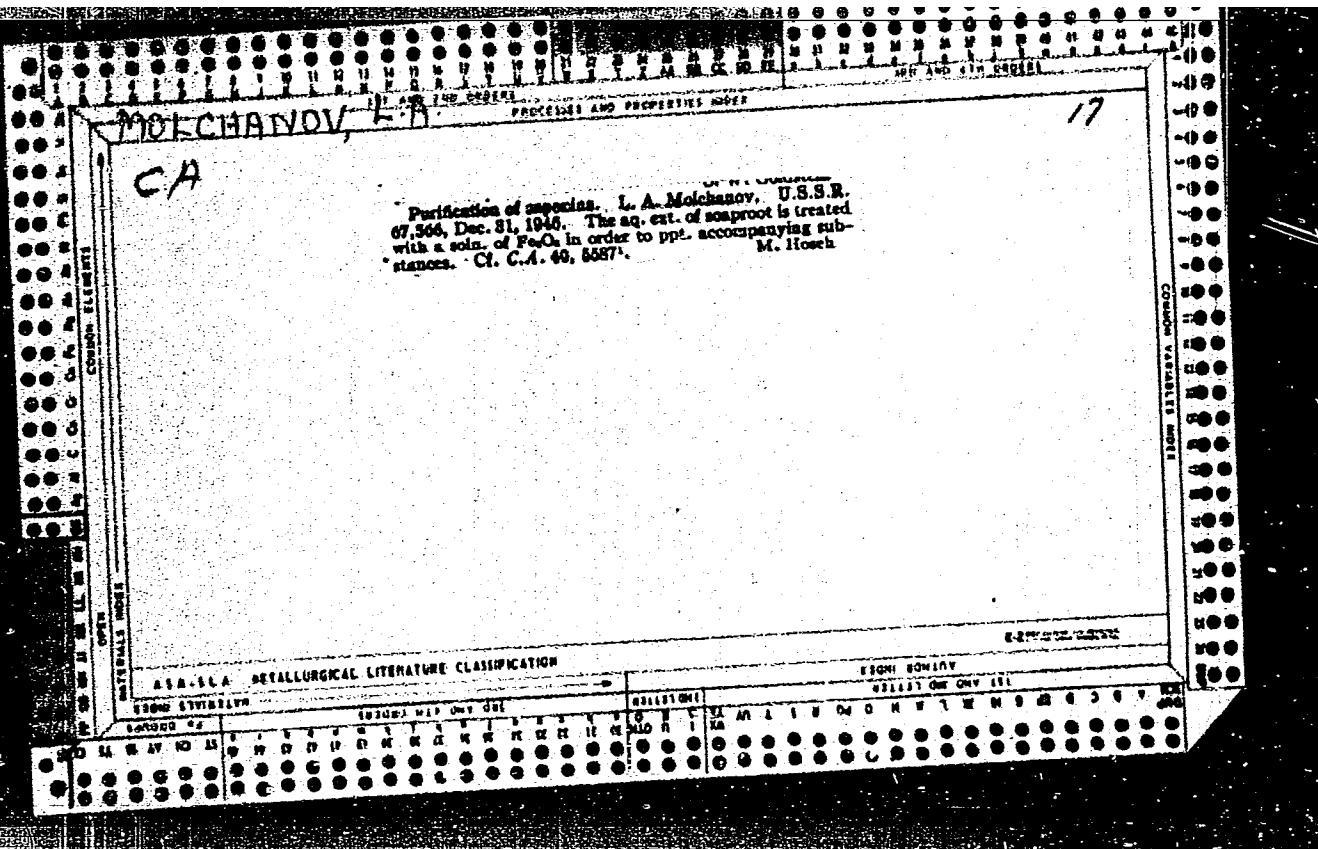
SO: LC, Soviet Geography, Part II, 1951, Unclassified

MOLCHANOV, L. A.

Meteorological Abst.
Vol. 4 No. 5
May 1953
Climatology and
Bioclimatology

63-195
Molchanov, L. A. Klimaticheskie issledovaniia Uzbekistana. [Climatic investigations in Uzbekistan.] (In: Uzbekistan. Komitet Nauk, Nauka v Uzbekistane za 15 let (1929-1939). [Science in Uzbekistan for 15 years (1929-1939).] Tashkent, 1939, p. 2-21.)
DLC—Brief history of meteorological network and service in Uzbekistan, especially of the Tashkent Observatory (est. 1876) which has been the central administration point. Systematic climatological and agrometeorological investigations were begun in 1921. An important phase of the activity has been the establishment of mountain meteorological stations and networks of rain gages to study rainfall and other climatic effects in high mountains (ca. 1928). A list of important publications on the climate of Uzbekistan and central Asia (1912-1934) is given.
Subject Headings: 1. Climatic surveys 2. History of meteorological services 3. Publication lists 4. Tashkent Observatory, Uzbekistan 5. Uzbekistan, U.S.S.R.—M.R.





1. MOLCHANOV, L.A.

2. USSR (600)

"Evaporation and Evaporability in Central Asia." Trudy usbekskogo geograficheskogo
obschchestva, Volume II, 1948 (75-84)

9. Meteorologiya i Gidrologiya, No. 3, 1949. [redacted] Report U-2551, 30 Oct 52.
[redacted] Report U-2551, 30 Oct 52.

MOLCHANOV, I.A.

Probable changes in climatic and hydrological conditions of Central Asia expected from the development of irrigation in its southern region. Izv.Uz.fil.Geog.sb-va 1:13-26 '55. (MIRA 10:3)
(Soviet Central Asia—Climate) (Irrigation)

MOLCHANOV, L.A.
MOLCHANOV, L.A.

Geographical games and quiz contests. Geog. v shkole 20 no.6:50-
53 N-D '57.
(MIRA 10:12)

L. Shkola No.28, stantsiya Shakun'ya.
(Geography--Study and teaching)

USSR / Cultivated Plants. Plants for Technical Use. M
Oil Plants. Sugar Plants.

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24972

Author : Molchanov, L. A.

Inst : Tashkent Agricultural Institute

Title : A Temperature Characteristic of the
Vegetational Period in Central Asia and the
Southern Belt of USSR, Applicable to Cotton
Cultivation

Orig Pub : Tr. Tashkentsk. s.-kh. in-t, 1957, vyp 9,
3-9

Abstract : No abstract given

Card 1/1

MOLCHANOV, Lev Alekseyevich

[Work of the geography club] Rabota geograficheskogo kruzhka; iz
opyta raboty uchitelia shkoly No.28 g. Shakhun'i Gor'kovskoi obl.
Moskva, Uchpedgiz, 1960. 74 p. (MIRA 14:7)
(Geography—Study and teaching)

MOLCHANOV, L.A.

Climate of the Golodnaya Steppe. Mat. po proizv. sil. Uzb.
no.15:9-13 '60. (MIRA 14:8)

1. Tashkentskiy sel'skokhozyaystvennyy institut.
(Golodnaya Steppe Climate)

USSR / Human and Animal Morphology - Respiratory Tract. S

Abs Jour : Ref. Zhur. - Biol., No. 22, 1958, No. 101438

Author : Molchanov, L.N.

Inst : Kazakh Medical Institute

Title : The Intra-Organic Topography of the Bronchi and
Vessels in the Lobes and Segments of the Lungs.

Orig Pub : Sb. nauchn. rabot. Kazakhsk. med. in-t, Kazan',
1957, 302-313

Abstract : In 50 human cadavers, the peculiarities of distribution and course of the pulmonary arteries, veins, and bronchi are described, with an account of the division of the lungs into lobes and segments.

Card 1/1

MOLCHANOV, L.N., aspirant

Touography of the blood vessels and bronchi in the pulmonary segments
(with summary in English). Khirurgija 34 no.1:101-108 Ja '58.
(MIRA 11:3)

1. Iz kafedry topograficheskoy anatomii i operativnoy khirurgii
(zav.-prof. M.M.Shalagin) Kazanskogo gosudarstvennogo meditsinskogo
instituta (dir.-dotsent R.A.Vyaselev)

(LUNGS, anatomy and histology,
bronchial & vasc. topography in pulm. segments (Rus)

MOLCHANOV, L.N. ; MAKAROVA, V.I. ; AKKERMAN, B.Z.

Iate results of surgical treatment of wounds of the heart. Sov. med.
22 no.12:8-12 D '58. (MIRA 12:1)

Ie. Iz kafedry khirurgii i neotlozhnoy khirurgii (zav. - prof. P. V. Kravchenko) Kazanskogo gosudarstvennogo instituta usovernenstvovaniya vrachey na baze 5-y gorodskoy bol'nitsy (glavnnyy vrach M. Ya. Lisé).
(HEART, wds. & inj.
surg., remote results (Res))

MOLCHANOV, L. N., Cand of Med Sci -- (diss) "Intraorganic Topography of Bronchials and Vessels in Longitudes and Segments of the Lungs," Kazan', 1959, 21 pp (Kazan' Medical Institute) (KL, 1-60, 126)

MOLCHANOV, L.N.; GROMOV, A.I. (Kazan')

Apoplexy of the ovary in acute appendicitis. Kaz. med. zhur.
no. 4:91-92 Jl-Ag '60. (MIRA 13:8)
(APPENDICITIS) (OVARIES—DISEASES)

SHUSHANIYA, V.R.; MOLCHANOV, L.N.

Effect of the operating length of a specimen and of its
heating on the fatigue life of steel under pure bending.
Zav. lab. 30 no.5:599-600 '64. (MIRA 17:5)

I. Tul'skiy politekhnicheskiy institut.

MOLCHANOV, L.N., starshiy prepodavatel'

Effect of the length of specimen working part on the form
of the fatigue diagram in overstressed testing. Izv. vys.
ucheb. zav.; mashinostr. no.7:62-65 '65.

(MIRA 18:12)

1. Submitted January 30, 1964.

KHARITONOV, N.I.; MOLCHANOV, L.N.

Corrosion fatigue strength of 50 steel under simultaneous asymmetrical
cyclic action and constant torsion. Zav. lab. 31 no.2:228-230 '65.
(MIRA 18:7)

1. Tul'skiy politekhnicheskiy institut.

MOLCHANOV, Leon; KHARETONOV, N. I.

Effect of overstress on the intensity of cyclic hardening in
roll bending. Zav. lab. 31 no. 4:482-485 '65.
(MIRA 18:12)

1. Tula'skiy politekhnicheskiy institut.

MOLCHANOV, L.N.; KHARITONOV, N.I.

Effect of heating in overstress testing for limited durability.
Zav. lab. 31 no. 12:1508-1511 '65 (MIRA 19:1)

1. Tul'skiy politekhnicheskiy institut.

KOLECHANOV, L.N.

Effect of overstressing and heating produced by it on the deflection of the specimen during testing under conditions of bend with rotation. Zav. lab. 30 no. 6x741-743 *64
(MIRA 1718)

1. Tul'skiy politekhnicheskiy institut.

SOV/120-58-4-7/30

AUTHORS: Bekkerman, I.M., Dmitriyev, V. A., Molchanov, L. P.,
Kristiansen, G. B., Yarygin, P. I.

TITLE: Ionisation Chambers and an Apparatus for Studying Wide
Atmospheric Cosmic Ray Showers (Ionizatsionnyye kamery i
apparatura dlya issledovaniya shirokikh atmosfernykh
livney kosmicheskikh luchey)

PERIODICAL: Fribory i tekhnika eksperimenta, 1958, Nr 4, pp 51-56
(USSR)

ABSTRACT: A description is given of ionisation chambers 60 litres
in volume as well as various elements of the apparatus
associated with them, such as pre-amplifier, amplitude
analyser, etc. The chambers are made of stainless steel and
are in the form of cylinders. The diameter of each cylinder
is 250 mm. The cylinder forms the outer electrode. The dia-
meter of the inner electrode, which is made of brass, is 4 mm.
The length of the working part of each chamber is 1000 mm.
The wall thickness is 2 mm. The pressure in each of the
chambers is controlled by special manometers attached to
them. The chambers are filled with very pure argon at a
pressure of 5 atm. The EHT is applied to the central
electrode through a 470 Meg resistor and the output pulse
is taken off through a 390 puf capacitor. The capacitance

Card 1/3

SOV/120-58-4-7/30

Ionisation Chambers and an Apparatus for Studying Wide Atmospheric Cosmic Ray Showers

of the entire chamber is 33 puf^f and the leakage resistance from the central electrode is 10^{12} ohm. A sectional drawing of the chamber is shown in Fig.2. In this figure 1 is the 390 puf capacitor, 2 is the left insulator, 3 is the chamber, 4 is the central electrode, 5 is the right insulator 6 is the 470 Meg resistor and 7 is the input valve. Fig.3 shows the characteristic curves of a typical chamber. The working region begins at 500 V. The working point actually chosen was at 1200 V. At that voltage the rise time of an electron pulse from the chamber is 30 μ sec. Each chamber is followed by a preamplifier of the type shown in Fig.4. This amplifier has a very low noise level and a wide region of linearity (10 μ V to 1 V). The entire system consists of four such chambers in parallel, each of the chambers being followed by a preamplifier. Pulses from the outputs of the four preamplifiers are applied via coaxial cables to a linear adding device and then to a 4-stage amplifier. From the amplifiers the pulses are fed into 4 channels of a discriminator, all the channels being the same. The circuit of the discriminator is shown in full in Fig.6. It converts the

Card 2/3

SOV/120-58-4-7/30

Ionisation Chambers and an Apparatus for Studying Wide Atmospheric Cosmic Ray Showers

measured signal into a signal whose duration is proportional to the amplitude of the measured signal (Refs 6 and 8). The apparatus will record pulses whose amplitudes differ by four orders of magnitude and the minimum pulse corresponds to the transit through a chamber of a single relativistic particle. There are 6 figures and 9 references, of which 4 are Soviet and the rest English.

ASSOCIATION: Zavod "Fizpribor" ("FIZPribor" factory)

SUBMITTED: October 11, 1957.

Card 3/3

MOLCHANOV, L.P.; KHORUZHAYA, S.D.

New installation for research on the kinetic reactions of man.
Uch. zap. MGPI no.168:67-72 '62. (MIRA 19:2)

VORONOV, M.A.; KHORUZHENKO, M.V.; KARASEV, Ye.A.; BELYY, V.A.;
LIVSHITS, G.A.; VOROPAYEV, V.I.; GONSKIY, G.V.; MEL'NICHENKO,
V.P.; MOLCHANOV, M.A.; OLYBIN, B.V.; NAVAGIN, Yu.S.; RAKOYED, A.I.;
PETRIKOV, V.G.

Soviet inventions in the machinery industry. Vest.mashinostr.
(MIRA 1981)
46 no.1r85-86 Ja '66.

MOLCHANOV, A.F.

SHARDANOV, A.M.; MOLCHANOV, M.F.

The Astrakhan tectonic blanket deposit in southeastern Caucasus.
Inv. AN Azerb. SSR no. 11:39-49 N'54. (MIRA 8:11)
(Caucasus--Geology)

MOLCHANOV, M.F.; MALTSEV, I.M.

Structure and water-bearing capacity of the water-driving complex
of the red beds of the Boydag formation. Izv. AN Turk. SSR. Ser.
fiz.-tekhn., khim. i geol. nauk no.6:93-96 '64.

(MIRA 18:4)

MOLCHANOV, M.F.

Dynamics of the formation pressures of the Cheleken
accumulation of iodine-bromine underground waters. Izv.
AN Turk. SSR. Ser. fiz.-tekhn. khim. i geol. nauk no.3:
(MIRA 18:12)
69-74 '65.

1. Turkmeneskoy SSR. Submitted Dec. 20, 1963.

SISAKYAN, N.M., akademik; BEZINGER, E.N.; MOLCHANOV, M.I.

Effect of puromycin on the incorporation of amino acids into
lipoids and proteins of chloroplasts. Dokl. AN SSSR 151 no.2:
449-451 J1 '63. (MIRA 16:7)

1. Institut biokhimii im. A.N.Bakha AN SSSR.
(Puromycin) (Chromatophores)

BEZINGER, E.N.; MOLCHANOV, M.I.; KOTOVSKAYA, A.P.; SISAKYAN, N.M., akademik

Isolation and characteristics of lipoproteins from bean chloroplasts.

Dokl. AN SSSR 151 no.3:722-724 Jl '63. (MIRA 16:9)

(Lipoproteins) (Chromatophores)

MOLCHANOV, M.I.; HEZINGER, E.N.; SIVAKYAN, N.M., akademik

Inclusion of C^{14} -amino acids from phosphatide-amino acid
compounds into lamellar chloroplast proteins. Dokl. AN
SSSR 159 no.1:202-204 N '64. (MERA 17:12)

I. Institut biokhimii im. A.N. Bakha AN SSSR.

BEZINGER, E.N.; MOLCHANOV, M.I.; SISAKYAN, N.M., akademik

Inclusion of C¹⁴ amino acids into the phosphatide fraction separated
by alkaline hydrolysis from a chloroplast lipoproteid. Dok. AN
SSSR 159 no.2:446-448 N '64. (MIRA 17:12)

1. Institut biokhimii im. A.N. Bakha AN SSSR.

BEZINGER, E.N.; MOLCHANOV, M.I.; SISAKYAN, N.M.

Role of lipoid compounds in biosynthesis of chloroplast proteins.
Biokhimiia 29 no.4:749-758 Jl-Ag '64.

(MIRA 18:6)

1. Institut biokhimii imeni Bakha AN SSSR, Moskva.

L 9917-66 EWT(1)/EWT(m)/EMP(t)/EWP(b) IJP(c) JD
ACC NR: AP6000879

SOURCE CODE: UR/0181/65/007/012/3664/3665

AUTHOR: Godik, E. E.; Molchanov, M. I.

ORG: Institute of Radio Engineering and Electronics, AN SSSR, Moscow (Institut radiotekhniki i elektroniki, AN SSSR)

TITLE: The effect of an electric field on the frequency dependence of generation-recombination noises in boron doped silicon

SOURCE: Fizika tverdogo tela, v. 7, no. 12, 1965, 3664-3665

IC TACS: semiconductor, silicon, forbidden band

ABSTRACT: The dependence of the coefficient for hole capture by negatively charged boron impurity atoms in silicon on the electric field was determined by investigating the effect of the electric field on the generation recombination noise of boron-doped silicon at frequencies between 3×10^4 and $\sim 10^{-4}$ cps. The samples used had a concentration of $\sim 5 \times 10^{15}$ of boron atoms/cm³ and $\sim 2 \times 10^{12}$ atoms/cm³ of compensated impurity. From the expression for the lifetime of the holes determined from the decrease of the noise spectrum at different electric fields (17--90 v/cm), it was established that at $\sim 20K$ the hole capture cross section by negatively charged boron atoms in silicon is inversely proportional to the electric field. Orig. art. has: [CS] 2 figures and 2 formulas.

SUB CODE: 20 SUBM DATE: 03Jul65/ ORIG REF: 003/ OTH REF: 003/ ATD PRESS
Card 1/1 PC

BEZINGER, E.N.; MOLCHANOV, M.I.; SISAKYAN, N.M., akademik

Biosynthesis of protein and nucleic acid in lamellae of bean
chloroplasts. Dokl. AN SSSR 166 no.3:738-741 Ja '66.
(MIRA 19:1)

1. Institut biokhimii im. A.N.Bakha AN SSSR. Submitted
September 24, 1965.

MOLCHANOV, M. S.

IOFFE, Iosif Grigor'yevich; MOLCHANOV, M.S., rezensent; LEBEDEV, G.Ye.,
redaktor; DMITRIYEVA, N.I., tekhnicheskiy redaktor

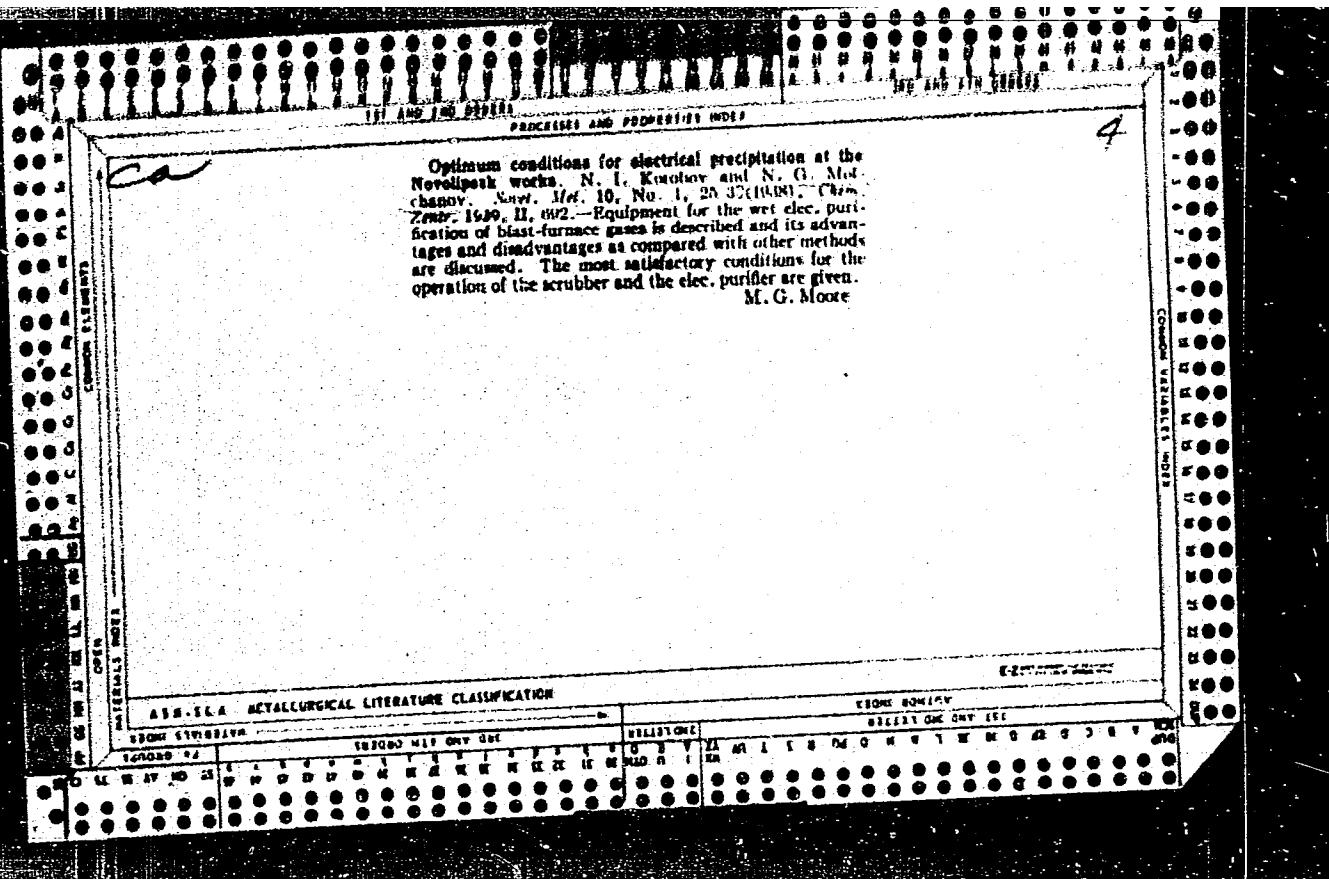
[Capital assets of the textile industry and their use] Osnovnye
fondy tekstil'noi promyshlennosti i ikh ispol'zovanie. Moscow,
Gos. nauchno-tekhn. izd-vo M-va legkoi promyshl. SSSR, 1957.
138 p. (MIRA 10:8)

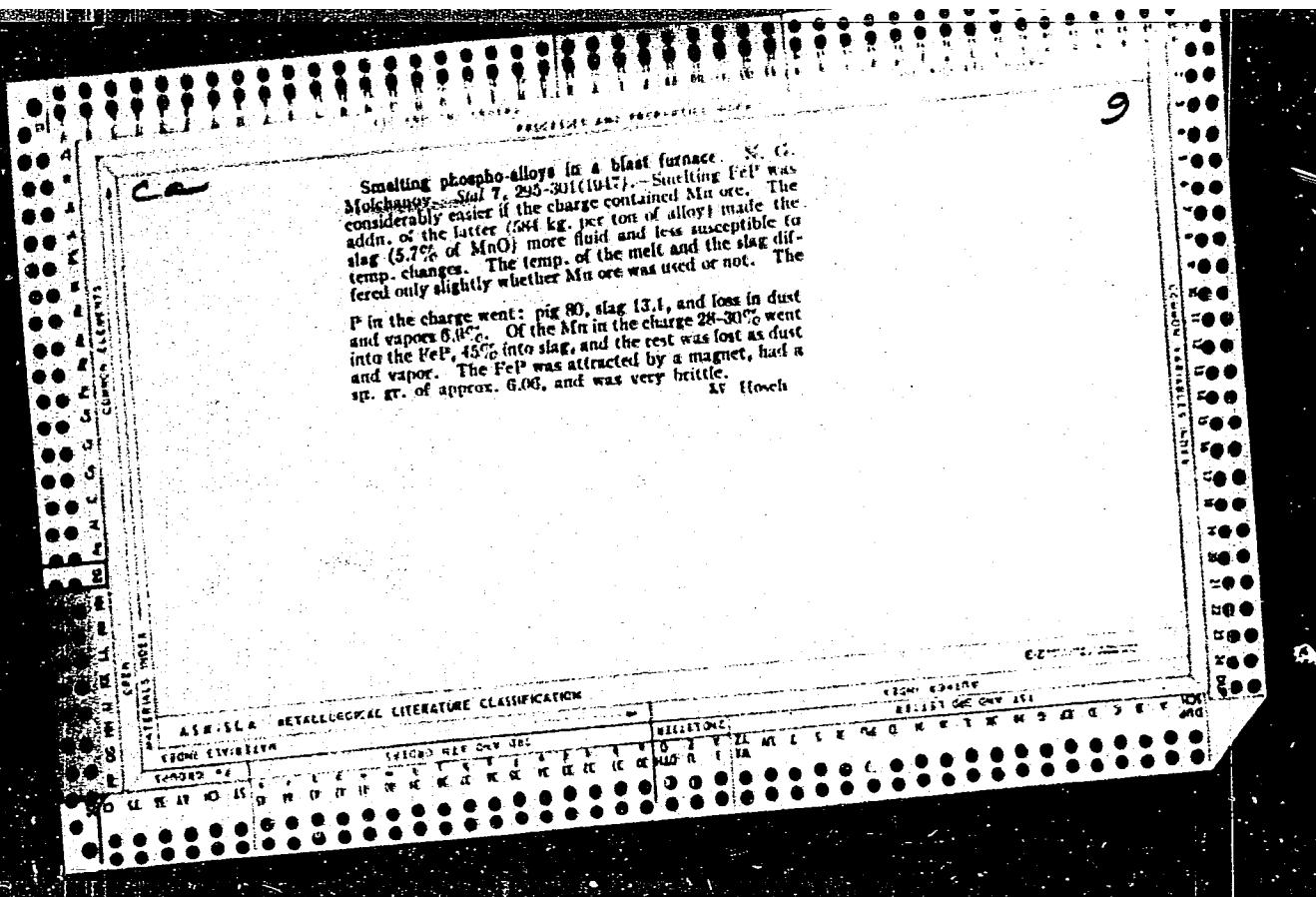
(Textile industry)

IOFFE, Iosif Grigor'yevich, dotsent, kand.ekonom.nauk; MAYZLIN, L.A.,
dotsent, kand.ekonom.nauk; KUKUSHKIN, A.I., retezant;
MOLCHANOV, M.S., retsezent; GOLUBEV, N.M., red.; KOGAN, V.V.,
tekhn.red.

[Economics of the textile industry] Ekonomika tekstil'noi
promyshlennosti. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po
legkoi promyshl., 1959. 394 p. (MIRA 12:12)

1. Zaveduyushchiy kafedroy ekonomiki i organizatsii proizvodstva
Leningradskogo tekstil'nogo instituta imeni S.M.Kirova (for
Kukushkin). 2. Gosplan RSFSR (for Molchanov).
(Textile industry)





18
Y
4-2 C

Service Life of Blast Furnaces. N. G. Molchanov. (*Stal'*, 1956, (11), 972-974). (in Russian). This article continues discussion on refractories and cooling systems for the blast furnace, and deals particularly with proposals made by S. I. Shkunmatov in *Stal'*, 1956, (3), 200-203. The present author recommends high-alumina or carbon linings for the hearth and hearth pad and high-alumina (iron-free) linings with an outer layer of iron-free thermal insulating material for the stack, and claims that this would enable stack cooling to be dispensed with. If stack coolers are used they should be of the peripheral plate type as proposed by Oreshkin (*Metallurgy*, 1956, (3)). Since conventional stack coolers encourages refractory failure by creating zones favourable to carbon deposition and resulting in temperature gradients conducive to cracking.

MOLCHANOV, A.N., referent; MOLCHANOV, N.G.

Modelling of temperature distribution in a blast furnace hearth
(From: "Journal of Iron and Steel Institute" no. 1, 1955). Stal'
16 no.1:82-83 '56. (MIRA 9:5)
(Great Britain--Blast furnaces) (Heat--Transmission)

MOLCHANOV

2653* (Russian) The Operating Periods of Blast Furnaces
O proekt obnaruzhenii domenskoi pechey N. I. Molchanova
Stal', v. 16, no. 11, Nov. 1958, p. 574-574.
Construction of a blast furnace which would lengthen the period
of operation. The proper use of C and highly aluminum
materials.

PHASE I BOOK EXPIRATION 507/2293

18(9)

MOLCHANOV, V.

Author. Institut staff
Title. Molchanov, V. Staloplavil'noye Proizvodstvo (Use of Oxygen in Steelmaking). Moscow, Metallurgizdat, 1957. 416 p.
 (Series: Itos. Sbornik, 27) Arrata, 3500 copies printed.

Ed. 1. Ye. A. Borodko [Ed. of Publishing House], Yu. D. Borodko [Editor]. Editorial Board of the Institute of Tech., Ed. 1. Ye. A. Vaynshteyn [Editor], Professor; R.M. Ugorzhev, Candidate of Technical Sciences [Deputy]; N.T. Gudkov, Candidate of Technical Sciences [Deputy]; A.A. Kuznetsov, Doctor, Professor; A.A. Zhuchorovskiy, Doctor, Professor; A.P. Kudin, Doctor, Professor; Yu. I. Lashkevich, Doctor, Professor; A.P. Lezhnev, Doctor, Professor; A.P. Lezhnev, Doctor, Professor; A.N. Polikhanov, Doctor, Professor; N.G. Tsvetkov, Doctor, Professor; and A. N. Tokhvinov, Doctor, Professor.

Purpose: Main collection of articles is intended for scientific industrial, chemical, and metallurgical engineers, physists and students.

Content: This book is a collection of scientific research papers on the utilization of oxygen in steelmaking. The first blast for the intensification of fuel combustion and the introduction of oxygen into liquid metal. In order to obtain an mixture are among the topics discussed. The use of oxygen in scrap-ore processes for making steel from pigs iron with a high phosphorus content is also discussed. Several articles deal with the regulation of steel-making furnace. Individual articles deal with the economy of steelmaking with oxygen-blown and no oxygen conditions for effective utilization of oxygen. References follow each article.

Original: [Candidate of Technical Sciences], Yu. M. Izmaylov [Candidate of Technical Sciences]. [Series] Itos. Tsvetkov, and Yu. D. Tsvetkov [Editor]. One Content in the English version.

Open-hearth bath: The author discusses the content of oxygen, hydrogen, and nitrogen present in the open-hearth bath at various stages of the heat.

Borodko, Yu. [Candidate of Economic Sciences], and Y.A. Romashko [Candidate of Technical Sciences]. Technical and Economic Efficiency of Oxygen Utilization in Open-hearth Processes 124

Orts, G.I. [Doctor of Technical Sciences, Professor]. Yu. V. Kozakovskiy [Candidate of Technical Sciences], and V.F. Orlova [Engineer]. Intensifying Open-hearth Conversion of High-phosphorus Pig Iron by Introducing Oxygen into the Bath 138

Orya, G.M. Yu. I. Kozakovskiy, Yu. A. Kapustin, and V.F. Orlova [Engineers]. Selection of Oxygen Utilizing Air in the Open-hearth Conversion of High-phosphorus Pig Iron 152

The author discusses the comparative industrial costs of

the different stages of the open-hearth process with and without the use of oxygen.

Orya, G.M. Selecting the Proper Method for Open-hearth Conversion of High-phosphorus Pig Iron 166

The author suggests a composition of open-hearth charge, which combined with oxygen gas, is apparently more efficient in dephosphorization.

Abramov, Ye. X. [Candidate of Technical Sciences, Doctoral Intern]. Intensification of the Open-hearth Scrap Process with Oxygen 177

The author discusses the use of oxygen blast for the intensification of fuel combustion, for the meltdown, for the direct oxidation of charge elements, and for the duration of the entire heat.

Abramov, Ye. V. Y.A. Rudrin [Candidate of Technical Sciences], and O.I. Demin [Candidate of Technical Sciences, Doctoral Intern]. Material and Heat Balances of the Open-hearth Scrap Process with Oxygen Blast 195

The authors give an account of a cooperative experimental investigation of heat and material balances of open-hearth processes with and without oxygen blast.

Rudrin, V.A. Temporary Overoxidation of the Open-hearth Bath During Oxygen Blast 214

Abramov, Ye. V., and V.A. Rudrin. Course of Carbon Oxidation in the Open-hearth Bath During Oxygen Blast 233

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Kudrin, V.A., and Ye. V. Abrosimov. Possibility of Decreasing Time of the Heating Process Proper in the Open-hearth Bath During Oxygen Blast. 252
The authors present a method of decreasing heating time to 4 to 5 minutes, from increasing production by 5 to 10 percent.

Avtarovsky, Yu. V. Dust Formation in the Open-hearth Furnace. 260
During the Aerop Process.

Aleksandrov, A.I. [Candidate of Technical Sciences]. O.N. Oya, and N.P. Bannyj. Making Steel From High-phosphorus Pig Iron. 281

The authors discuss a method of decreasing heating time of high-phosphorus pig iron, including heat time, slag formation, and the effect of oxygen on fuel consumption.

Ginior, M.A. Doctor of Technical Sciences [Professor], and N.S. Pavlov [Candidate of Technical Sciences]. Heat Exchange Above the Bath of a Recirculation Steel-making Furnace. 305
Above the Bath of a Recirculation Steel-making Furnace

This article deals with the thermal and technical aspects of a 10-tonne-a-day flat reheat and steel-making furnace with blast-turbine fuel fed from both ends accompanied by the application of oxygen-enriched air.

Korotkin, V.A. [Candidate of Technical Sciences]. Study of Combustion in the Recirculation Steel-making Furnace. 330
The author describes an investigation of the combustion processes, furnace gases, and composition of the exhaust gases.

Saburman, A.Ya. [Candidate of Technical Sciences]. Special Characteristics of Gas Flow in a Recirculation Steel-making Furnace. 339
The author discusses investigations made in a model furnace for the study of gas flow, the distribution of combustion products, and the distribution of pressure on the walls.

Demin, G.I. [Doctor]. Heat Balances of a Recirculation Steel-making Furnace. 372
Sobolevskaya, N.V. [Candidate of Technical Sciences, Doctor]. Combustion of Oxygen Fuel Combustion Processes in Furnaces With Gas Flow Through and Recirculating Gas Flows. 377

Alexandrov, S.O. Doctor of Technical Sciences, Professor]. A.A. Shishko [Candidate of Technical Sciences, Doctor], and N.G. Zaytsev [Engineer]. Quality of Steel Made in a Recirculation Steel-making Furnace. 395
The authors investigate the qualities of recirculation furnace steels, comparing them with ordinary open-hearth steel.

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Translation from: Referativnyy zhurnal, Metallurgiya, 1957, Nr 10, p 40 (USSR)

AUTHOR: Molchanov, N.G.

TITLE: Measurement of the Melting Points of Iron Ores (Izmereniye temperatur rasplavleniya zheleznykh rud)

PERIODICAL: Sb. stately Vses. zaochn. politekhn. in-ta, 1957, Nr 16, pp 72-79

ABSTRACT: Attention is drawn to the great practical importance, for the process of sintering and blast-furnace smelting, of a knowledge of the melting and softening points of Fe ores. Two laboratory methods of determining melting point - the crucible method and a method employing Prof. B.P. Selivanov's microfurnace - are described. In both cases, the melting point is determined from the temperature "flat spot" on the temperature-vs.-time graph (with slow heating of the specimen). The results attained by either method are adduced, also data on the equipment, the attainable accuracy, and a comparative characterization of both methods. The numerical difference between the melting point and the temperature of onset of softening is explained.

M.L.

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137-50-(-11373

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 6, p 17 (USSR)

AUTHOR: Molchanov, N.G.

TITLE: Comparison of the Processes of Combustion of Gaseous Fuel
in Uniflow and Recirculation Types of Furnaces (Sравнение
процессов горения газообразного топлива в печах, рабо-
щих с прямоточным и циркуляционным режимом
движения газов)

PERIODICAL: Sb. Mosk. in-t stali, 1957, Vol 37, pp 377-394

ABSTRACT: Description of the results of an investigation (with a fired model fueled with city gas) of the combustion processes in uniflow (U) and recirculation (R) procedures. Gas consumption is 2.4-2.6 m³/hr; the excess air factor is $\alpha = 0.9-1.5$. The furnace was heated to 1000°C before samples were taken. With R there is a better mixing of the gases and a more complete burning of the fuel at lower α ; in vertical ducts there is no CO at $\alpha = 1.2$, while with U CO may still be observed at $\alpha = 1.5$. With R, the composition of the gases beneath the roof is virtually constant along the total length of the furnace. With uniflow, the combustion processes extend along the length of the furnace.

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